

NOTES ON COLOR AND PATTERN OF EYE IN DIPTERA

By GEORGE C. STEYSKAL, Grosse Ile, Michigan.

The color and color pattern of the eye of many groups of Diptera are of value taxonomically. In many cases, however, there is no record of the character, since it disappears when the insect dries and after some time will not reappear upon relaxation.

The following notes are based upon fresh material taken from a cyanide killing bottle soon after death. All the material was captured in Michigan.

Family Stratiomyidae

Berkshiria albistylum Johnson (*Johnsonomyia aldrichi* Malloch), ♀ (Fig. 1 A). Brownish green in ground color, with green horizontal band edged with purple and purple-brown cloud in upper and lower divisions.

Eupachygaster lenshawii Malloch, ♀ (Fig. 1 B). Ground color brownish green becoming brown at fore and hind margins. Anterior vertical fascia red-brown, posterior (central) fascia blue-purple, pure blue at edges. Malloch (1917: 338) states "eyes with four vertical dark stripes, one on center, deep violaceous blue, extends from upper margin to a point one fifth distant from lower margin, the others (purple) being a slender one along anterior margin, a broad one extending from lower margin almost to upper margin, between the former and the blue central stripe, and a rather broad one along posterior margin."

Neopachygaster maculicornis Hine, ♀ (Fig. 1 C). Ground color olive green with purple horizontal band running out into an extensive but weak and diffuse purple cloud in upper part of eye. Malloch (1. c.: 339) has "the upper half of eye, except the narrow posterior margin, purple, the remainder being yellowish."

Pachygaster pulcher Loew, ♀ (Fig. 1 D). Brown in ground color, with three slender purple-brown horizontal bands separated as shown by four green bands. Malloch (1. c.: 339) says only "*Pachygaster pulcher* has four slender horizontal stripes on center."

Family Aulacigasteridae

Aulacigaster leucopeza Meigen, ♂ ♀ (Fig. 1 E). Ground color brown below, purple-brown above, with four horizontal bands of bright golden green as shown.

Family Otitidae

Pseudotephritis cribellum Loew. The eye is plain brown-green with purple reflections (cf. *P. vau*, below).

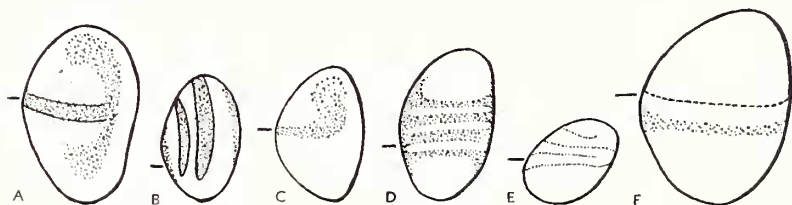
P. vau Say, ♀ (Fig. 1 F). Ground color green below, crossed near middle by a purplish horizontal band, and sharply divided from a brownish-green upper part.

Pterocalla strigula Loew. Hendel (1909:27) places this species (the only one of the genus in northern North America) in *Pterocalla sensu strictu*, to which group he ascribes the character "Augen bandiert." However, several specimens taken by the writer have no discernible pattern on the eyes.

LITERATURE CITED

Hendel, F., 1909. Uebersicht der bisher bekannten Arten der Pterocallinen. Deutsche Ent. Zts. 1909, Beiheft: 1-84.

Malloch, J. R., 1917. A preliminary classification of Diptera, etc. Bull. Illinois State Lab. Nat. Hist. 12 (art. 3): 161-409, pls. 28-57.



EXPLANATION OF FIGURE I.

Eye patterns of Diptera. The dash at left indicates position of antennae. A, *Berkshiria albistylum* Juns.; B, *Eupachygaster hen-shawi* Mall.; C, *Neopachygaster maculicornis* Hine; D, *Pachygaster pulcher* Lw.; E, *Aulacigaster leucopeza* Mg.; F, *Pseudotephritis vau* Say.